

## KL Series Breathers

The KL series desiccant breathers are well suited for vibration and harsh environments, while also providing serviceability and high dirt holding capacity.



### ORDERING CODES:

#### BOX 1

#### BOX 2

#### BOX 3

KL		Drying Agent [Box 2]		Check Valves [Box 3]	
Code	Description	Code	Description	Code	Description
93	300 cc	R	ZR Gel	V	With Check Valves
96	600 cc			-	Without Check Valves
121	1000 cc				
122	2000 cc				

### MATERIALS & COMPONENTS:

- **Filter Media:** Glass Fiber
- **Hydrophilic Media:** ZR Gel
- **All Other Components:** Copolyester, Buna-N, Stainless steel

### CHEMICAL COMPATIBILITY:

Compatible with all mineral oils, most synthetic oils and diesel fuels (Contact Des-Case technical support for chemical compatibility inquiries)

### PERFORMANCE SPECIFICATIONS:

Product Code	93 Series	96 Series	121 Series	122 Series
<b>Temperature Range</b>	-40°F to 194°F (-40°C to 90°C)			
<b>Filter Efficiency</b>	3 µm absolute (β <sub>3</sub> ≥ 200)			
<b>Adsorption Material</b>	ZR Gel 3-6 mm			
<b>ZR Gel Volume</b>	300 cc	600 cc	1000 cc	2000 cc
<b>Amount of Desiccant</b>	.5 lbs (230 g)	1 lbs (460 g)	1.7 lbs (770 g)	3.4 lbs (1540 g)
<b>Water Adsorption Capacity (Maximum Water Retention)</b>	2.8 fl. oz (86 ml)	5.5 fl. oz (172 ml)	9.3 fl. oz (288 ml)	17.6 fl. oz (576 ml)
<b>Color Indication</b>	Red to Yellow			
<b>Check Valve Cracking Pressure (For order codes ending in "V")</b>	.15 psi (.01 bar)			
<b><sup>2</sup>Application Sizing Recommendations</b>				
<b>Max. Airflow at ΔP 1 psi [.07 bar] without Check Valves</b>	24.7 cfm (700 l/min)	24.7 cfm (700 l/min)	53.0 cfm (1500 l/min)	53.0 cfm (1500 l/min)
<b>Max. Airflow at ΔP 1 psi [.07 bar] with Check Valves</b>	10.6 cfm (300 l/min)	10.6 cfm (300 l/min)	14.1 cfm (400 l/min)	14.1 cfm (400 l/min)

<sup>1</sup>NOTE: Small variations in the manufacturing process can be common and will be within the allowable engineering tolerances.

<sup>2</sup>NOTE: This is intended as a general guideline for sizing only; other considerations, such as: humidity level, frequency of air flow, ambient temperatures, and chemical compatibility are very important in sizing a breather properly. Larger applications and special circumstances typically require the most thorough analysis. Please contact Des-Case for assistance in sizing a breather.

### Typical Applications:

- Mobile & off-road equipment
- Hydraulics
- Nautical applications
- Truck differentials

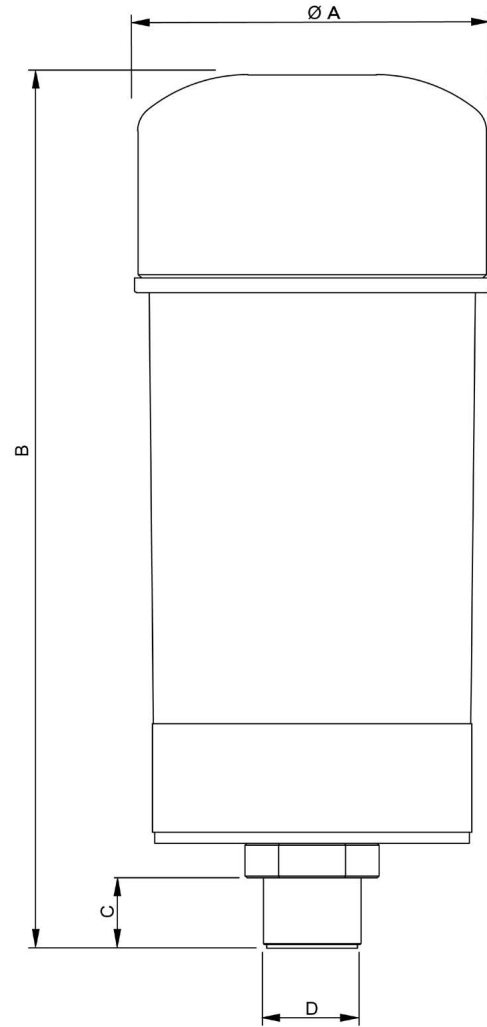
### Typical Industries:

- Wind Energy
- Storage
- Pulp & Paper
- Mining
- Aviation
- Petrochemical



### DIMENSIONS:

	A	B	C
<b>Series</b>	Inch / mm	Inch / mm	Inch / mm
<b>93</b>	3.9 / 98	7.1 / 180	0.6 / 16
<b>96</b>	3.9 / 98	9.4 / 240	0.7 / 17
<b>121</b>	5.1 / 130	11 / 280	1 / 25
<b>122</b>	5.1 / 130	15.4 / 391	1 / 25
<b>Thread Size (D)</b>			
<b>KL 93 &amp; 96</b>	¾" BSP male		
<b>KL 121 &amp; 122</b>	1 ¼" BSP male		



### SPARE PARTS:

Product Spare Parts	93 Series	96 Series	121 Series	122 Series
<b>KL Spin-On</b>	KL90 (9331034)		KL120 (9317903)	
<b>ZR Gel</b>	300 cc / RF-300 (9331156)	600 cc / RF-600 (9331155)	1000 cc / RF-1000 (9331157)	2000 cc / RF-2000 (9331158)
<b>Spare Kit*</b>	RK-93 (9318115)	RK-96 (9318116)	RK-121 (9318117)	RK-122 (9318118)

\*The spare kit contains 1x KL Spin-On, 1x ZR Gel refill, 2x foam filters, 1x bottom seal stickers, 1x adapter plug.